

Alliance

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# THE CACAO MARKET SYSTEM IN PERU



## Opportunities for supporting renovation and rehabilitation

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### About this document

This market system assessment was completed as part of the baseline assessment for the Maximizing Opportunities for Coffee and Cocoa in the Americas (MOCCA) project. For more details on how this market system snapshot was taken, see Wiegel et al., 2020. Coffee and Cacao Market Systems in the Americas: Opportunities for Supporting Renovation and Rehabilitation. The document can be found here: <https://hdl.handle.net/10568/108108>

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### Disclaimer

The opinions and comments in this document do not necessarily reflect the opinion of the International Center for Tropical Agriculture, TechnoServe or Lutheran World Relief. Any errors are solely our fault.

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## HOW TO READ THE COUNTRY SNAPSHOT

Country snapshots are a description of the baseline situation of the core market system for coffee or cacao in MOCCA countries at the **national** level based on rapid appraisals carried out in each country.<sup>1</sup> The level of detail presented is to some degree a reflection of the complexity and maturity of the sector in each country. We would not expect the market system for a new crop, in a small sector, in a small country, to necessarily be as developed as that for a historical crop, in a large sector, in a large country. Country Snapshots are available for coffee and cacao market systems in El Salvador, Guatemala, Honduras, Nicaragua and Peru, and also for the cacao market system in Ecuador. The tables and figures are described below in the order in which they appear in the country snapshots.

**Figure: Map** - The country map at the beginning of each snapshot uses shading to show the major cacao or coffee producing areas of the country by department/province.

**Table: Cacao or Coffee in Country** - provides general statistics on the country and on the sector to provide the reader with a basic contextualization of the different cases, for example the size of the sector and relative economic importance for the country. Data sources are described in the Appendix. We used sources for which similar data was available across countries. In some cases, particularly for Guatemala cacao data, we were unable to find consistent data across official sources.

**Figure: The Market Map (Core Market System for Cacao or Coffee in Country)** – The Market Map has three parts. The **center** shows the market chain and its principal competing channels. The market chain is the chain of economic actors (players) who own a product as it moves from primary producers to consumers. The arrows represent the flow of money, from left to right, as the product is purchased from one actor by another. Where possible, we have mapped this for different qualities of coffee/cacao and added numbers of actors or market share where available. This section helps to understand chain structure and to think about systemic efficiency. The **top** shows the rules and business environment including policies and institutions (influencers) that shape the market system. These are organized from left to right based on the year in which they became an influence on the market system, with the most recent on the left and the oldest on the right. This section helps identify policies or institutions that are influencing how the chain works. The **bottom** shows the services, for example business and extension services, that support the market chains operation at any point along the chain. These are organized as much as possible based on actors or part of the chain for which they provide a service, with services on the far right most relating to production and those on the far left most relating to exports. This section helps identify key services or missing services and link services with users within the chain.

**Figures: Key Supporting Market Systems** – These market system doughnut diagrams unpack some of the **supporting functions** for the coffee and cocoa market systems identified as areas for intervention in MOCCAs Theory of Change, including technical assistance, research, genetic material and financial services. The doughnut is a simplified Market Map where the center shows a generic supply and demand function for the support service of interest. The **top** of the doughnut shows the services that support the provision of the core service and the **bottom** of the doughnut shows the rules that shape the provision of the core service. Where this service or regulating function is predominantly associated with a single or few actors, and space permits, they are named. Using technical assistance as an example: Technical assistance provided to farmers is at the center of the diagram, and described briefly in the text underneath the diagram in terms of who provides the service, who pays for the service, the nature of the service, and the key supporting functions and regulations. In the top of the diagram we have listed supporting functions identified that enable technical assistance to be provided to farmers including training of extension agents, funding of technical assistance, production of content, research, etc. In the bottom of the diagram we have listed all of the rules, regulations, institutions that influence how technical assistance is provided to farmers, for example an entity that certifies technical assistance providers or dictates content or the methodology used to provide technical assistance to farmers.

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<sup>1</sup> For more information on methods, see Wiegel et al., 2020. Coffee and Cacao Market Systems in the Americas: Opportunities for Supporting Renovation and Rehabilitation.

## CACAO IN PERU



Figure 1 Main cacao producing areas

Peru is the second most important origin for fine and flavor cacao, after Ecuador. Yet Peru distinguishes itself from Ecuador on several fronts – it has higher yields, higher prices and a higher growth rate. Peru also has greater genetic diversity of cacao including commercially exploited materials such as Piura white and Chuncho, as well as many other still to be explored. Peru is also the world’s largest producer of organic cacao. Peru has significant production of CCN-51 cacao variety, introduced in 2002 as an alternative to coca; by 2011 Ministerio de Agricultura y Riego (MINAGRI) estimated that it accounted for over half of national cacao production (1). More recent efforts have introduced international fine flavor clones instead of CCN-51. Production of cacao in Peru has more than doubled since 2011 due to increases in area planted as a result of heavy investments by USAID, the Peruvian government and other donors to introduce cacao as an alternative crop in coca producing areas (1). Almost half of the current production area in Peru can be attributed to alternative development projects such as Alianza Cacao Perú. As a result, a large percentage of Peruvian cacao plantations are young, contributing to the higher average yields.

Table 1 Cacao in Peru<sup>2</sup>

<b>COUNTRY FACTS AND FIGURES</b>	
Population (rural)	32.2 million (21%)
Farmers	2,199,243
GDP per capita	12,237 USD
HDI Rank	89 (high)
Poverty (rural)	22% (46%)
<b>PRODUCTION</b>	
Cacao farmers, #	90,000
Associated farmers, %	35%
Area harvested, Ha	145,169
Production, MT	121,825
Global rank among producing countries	8th
Yields, MT/Ha	0.839
Climate risk	nd
<b>EXPORTS</b>	
Exports, MT (beans)	76.715 (81%)
Exports, USD	278 million
% of all export value	0.6%
Principal markets	Netherlands 31% Belgium 18% USA 9% Canada 8% Italy 6%
Export Price Beans (USD/MT)	3,257
Quality (ICCO Annex classification)	75% fine and flavor
Certifications	Organic, FT
<b>CONSUMPTION</b>	
Imports, MT (beans)	5,465 (25%)
Imports/Exports, volume	7%

<sup>2</sup> See Appendix for data sources.

The cacao processing sector, which in 2000 processed almost 100% of exported cacao, has not kept up (1). In 2010, cacao exports in beans were just below the bean equivalent of exports in processed cacao such as butter, powder and paste. By 2016, bean exports had increased over 500% while exports of processed products have increased by 50-65% ( (1), (2)). Europe is by far the most important export market, and so the sector is organizing around EU cadmium (Cd) regulations as well as the expected demand for deforestation free cacao from the EU (see EC Communication on Stepping up EU Action to Protect and Restore the World's Forests, July 2019).

MINAGRI coordinates at the national level a cacao working group and the coordinator is well known within the sector and internationally. The platform is managed jointly by MINAGRI, Asociación Peruana de Productores de Cacao (APPCACAO) (producers) and the Cámara Peruana de Café y Cacao (industry). There are also regional expressions of the platform in production regions with local actors. Technical assistance and support are in the hands of regional governments except the functions of Servicio Nacional de Sanidad Agraria (SENASA) and Instituto Nacional de Innovación Agraria (INIA) with regards to certification of genetic material and seedlings. Priorities include sensory standards to improve quality management and differentiation of cacao; cadmium research to inform compliance with EU regulations; improved information and capacity around genetic material selection and multiplication for different regions; development of a national cacao plan following the ICCO global agenda, with support from UNDP; and reaching unorganized farmers, who still represent the majority in the sector and are not represented by APPCACAO. Several government initiatives provide investments in cacao including Programa Nacional de Innovación Agraria (PNIA), AGROIDEAS, Comisión Nacional para el Desarrollo y Vida sin Drogas (DEVIDA), Agrobanco, Agroperú, Ministerio de Comercio Exterior y Turismo del Perú (MINCETUR) and the regional governments.

Multinational traders have entered and grown within Peru over the past decade and today dominate the sector together with national firms. The top five exporters in Peru accounted for 72% of exports in 2015 (1) while 13 farmer cooperatives and associations together accounted for just 19% of exports. In general, exporters feel there are opportunities to grow in the cacao sector in Peru, to work on differentiated cacaos. Farmer organization are relatively new and transparent as compared to the coffee sector.

APPCACAO represents organized cacao farmers (30,000 farmers in 25 organizations), so around 30% of all farmers, and plays a strong role in advocacy for farmers within the sector. The organization is relatively strong and well respected within the sector and by its constituents. The Cámara de Café y Cacao brings together major players from the private sector and is a small but well-regarded organization. Both sit with MINAGRI to support the development of the National Cacao Plan, underway with support from the UNDP Green Commodities program, following the example of the coffee sector.

Alianza Cacao Perú, a USAID funded initiative started in 2012 to support alternative development in coca growing areas through introduction and support for cacao has done an impressive job bringing actors together to support development of the sector. In particular, Alianza Cacao has been very successful in engaging private sector actors ranging from processors, traders, inputs suppliers and financial institutions in creative models for improving farmer access to different services needed to support cacao production. Alianza Cacao Perú has also developed technical content and training for extension agents and farmers that has helped to homogenize and disseminate best practices for cacao production and processing.

Current trends and concerns in the sector center around strengthening farmer organizations to improve quality of cacao, generating information and management options related to Cd, building capacity for

sensorial analysis, and establishing a research network. Debate is ongoing about what genetic material should be promoted and whether CCN-51 should be among them.

## RENOVATION AND REHABILITATION IN CACAO IN PERU

The issue of R&R is different for two different zone types in Peru. First are the traditional cacao producing regions where plantations are older, less dense and largely in need of renovation. In these areas there is interest in conserving existing genetic biodiversity, with sought after flavors. There is a large network of clonal gardens in different regions of the country and within different institutions but work has still to be done on identifying, characterizing and multiplying promising materials for different agroecological zones.

The second group are the areas where cacao has been introduced, relatively recently, as an alternative crop to coca. In these areas, plantations are much younger (under 10 years), much more compact (over 1,000 plants per Ha), and farmers are provided access to planting material, finance and technical assistance, including post-harvest and marketing support. Many of these have introduced the highly productive CCN-51, as well as international fine flavor clones in polyclonal arrangements, so in some sense, the production models are different.

Piura, with its production of white cacao, is a particular example where farmers are expanding areas under production of a special type of cacao adapted to the dry low region along the coast for very specialty markets. Given the genetic diversity of cacao in Peru there is interest in developing strategies that support in situ conservation of this genetic diversity on farms.

TechnoServe and others have worked on techniques for rehabilitation. The TAPS method, which successfully synchronized fertilization and pruning, was widely disseminated by TechnoServe and by others under different names. This experience could be a starting point for MOCCA.

## CORE MARKET SYSTEM FOR CACAO IN PERU

Over half of Peruvian cacao is sold as conventional fermented cacao. This cacao is largely exported by multinational firms in the form of beans, or by national firms who may also process before exporting. The majority of this cacao is purchased from intermediaries who purchase the cacao from farmers who are not associated. A second important category of cacao is certified cacao, which is largely produced by farmers who sell through associations to large cooperatives who export the cacao. Some of this cacao is also purchased by multinational firms from associations for export. There is a small amount of Peruvian cacao that is sold at differentiated prices based on flavor and is largely exported through the larger cooperatives, or transformed into fine chocolate by national chocolate firms.

There are a number of rules relevant for the sector including access to finance, sector governance, quality standards, certifications and government programs. Support services include subsidized technical assistance and seedling distribution, as well as growing research on Cd related issues. In areas where DEVIDA works, there are also important support services in terms of general rural infrastructure improvements including roads and services.



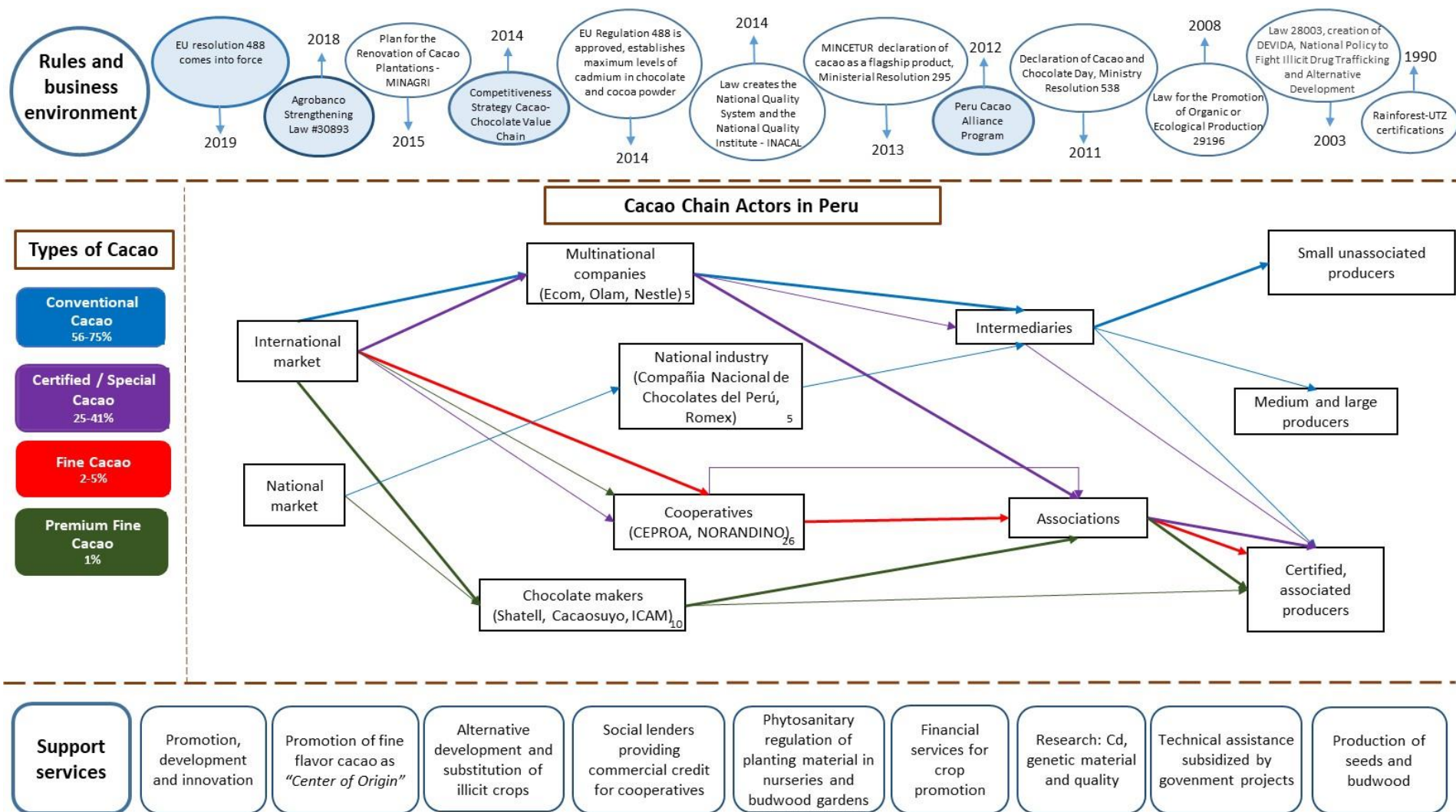


Figure 2 Core market system for cacao in Peru



## KEY SUPPORTING MARKET SYSTEMS

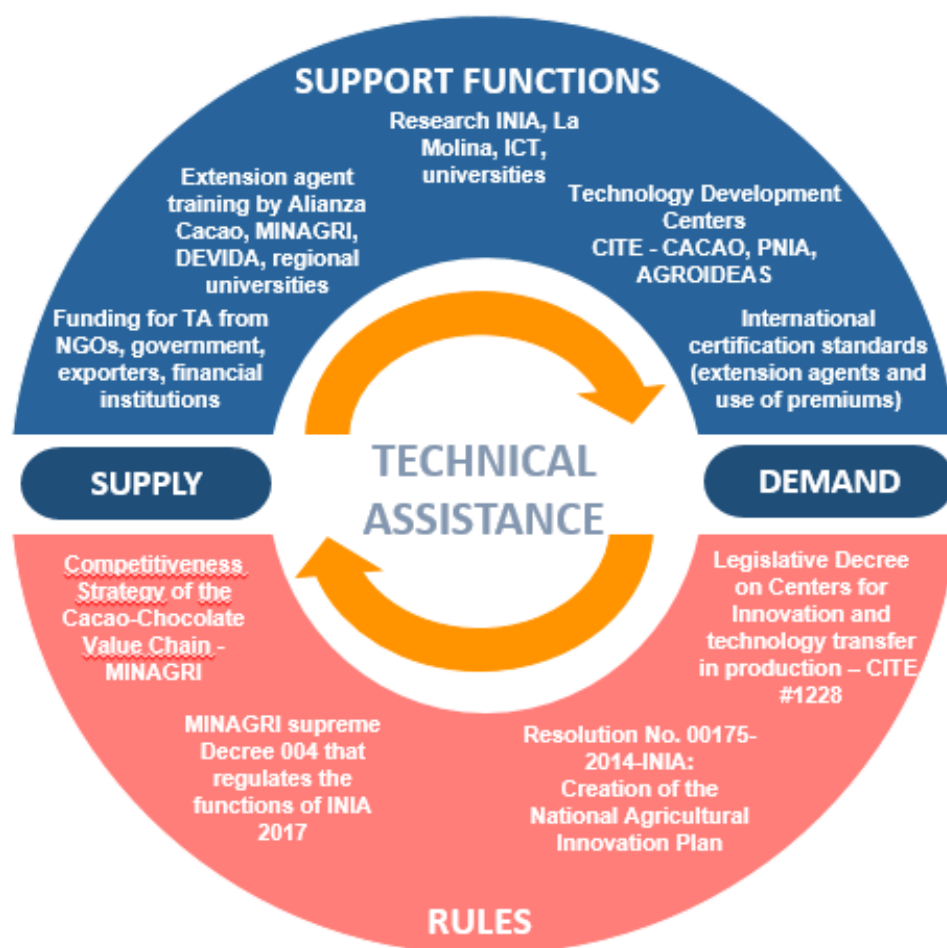


Figure 3 Market system for technical assistance for cacao in Peru

*Technical assistance* for cacao farmers in Peru is provided largely by NGOs, exporters, and farmer organizations, as well as government through DEVIDA, Agencias Agrarias or municipalities. Alianza Cacao Perú has 60 technical assistance agents, the largest group in the country. TA provided by NGOs is funded by international donors and focused on productivity, plantation design including agroforestry models, as well as fertilization and post-harvest processing and quality. Some large exporters have 10-15 technicians focused mainly on certified clients and certification requirements as well as productivity and funded through commercial margins, clients or certification premiums. Farmer organizations are also important providers of technical assistance to farmers, focusing on certification and productivity and funded through donor funds, Peruvian government competitive funds, and certification premiums.

Supporting functions include training of TA providers, research, certifications, and innovation systems which all provide technical inputs to TA for farmers. Funding for technical assistance from third parties (i.e. not the provider nor the farmer) is another key support function. Most technicians receive training on cacao as part of their formal education as agronomists, and this is complemented by on the job

training, courses, and research outputs from La Molina, Instituto de Cultivos Tropicales (ICT) and INIA. Alianza Cacao has trained many TA providers.

Technical assistance is loosely coordinated by priorities established in national strategies and content developed by Alianza Cacao. The broad network and funding size of Alianza Cacao has given it a hegemonic role within the sector, at least for the region where they work.



Figure 4 Market system for research for cacao in Peru

*Research* in cacao in Peru is mainly carried out by the Universidad Nacional Agraria La Molina, the ICT, INIA, and Bioversity. La Molina and ICT are most recognized for cacao research. INIA has the public mandate and experiment stations, but not the expertise nor recognition. Yara and other inputs suppliers also carry out research. Research in cacao is largely funded through public and donor funds, with some private sector investment i.e. Yara. Research is currently focused on cadmium, genetic material and quality. R&R is not a specific topic. Research is disseminated through presentations, trainings and public events. Regional universities and CITEs play an important role in innovation and dissemination locally. The Center for Innovation in Cacao is an interesting collaborative initiative recognized and funded nationally, with national and international collaborators.

Supporting functions include regional innovation centers which serve to disseminate and validate research findings regionally; student theses at all levels; funding for research from the state and donors;

engagement in regional and international research platforms such as that recently formed for Cadmium. Natural genetic diversity was also mentioned as a supporting function providing opportunities for genetic research other countries do not have, and attracting international research collaborations.

Research is regulated by a series of laws related to the national system for science, innovation and technology and the National Agricultural Innovation System, led by INIA. These laws assign mandates and resources to specific institutions to coordinate and promote research in different topical areas. The national competitiveness strategy and the national cacao working group establish research priorities that are then taken up by donors. Cadmium in particular has been a focus of research funding and work.

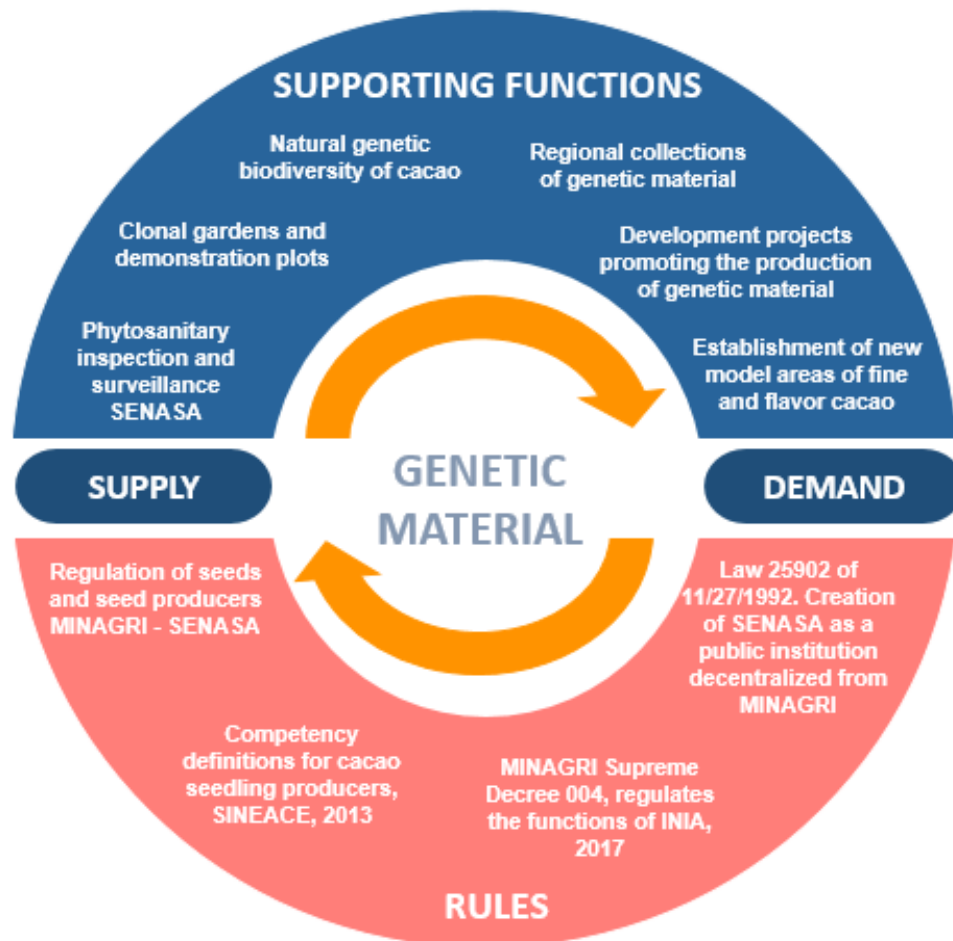


Figure 5 Market system for genetic material for cacao in Peru

*Genetic material* – Seeds, budwood and seedlings are produced by farmers, formal and informal commercial nurseries, farmers organizations, Agencias Agrarias, and development initiatives. In newer cacao regions, large initiatives like Alianza Cacao Perú and DEVIDA are major funders of the production and distribution of cacao genetic material, particularly budwood from international clones (ICS95, ICS39, TSH565, CCN-51), which they have georeferenced. Alianza Cacao Perú has focused on fine flavor materials and grafting by farmers. Farmers in traditional production areas often select their own seed or budwood from *supertrees*, especially for specific types of cacao (i.e. Piura white, Chuncho or Amazonas). Commercial nurseries sell to projects or larger farmers and farmer organizations and regional Agencias Agrarias often receive funding from PNIA.

Supporting functions for the production of cacao genetic material for farmers include regional collections/clonal gardens, demonstration plots with polyclonal arrangements, georeferencing, as well as funding from development initiatives. All of these contribute to availability of materials for planting. The genetic diversity of cacao in Peru also supports differentiation, breeding and in situ conservation.

Regulations exist to certify seeds, budwood, nurseries and nursery managers, but they are not regularly applied. SENASA certifies nurseries in terms of production practices and phytosanitary measures, but their coverage is limited. INIA is legally responsible for certification of nursery managers (also APPCACAO) and genetic material including seeds and budwood, but cacao seed has yet to be certified in Peru. The traceability systems implemented for example by Alianza Cacao Perú for the international clones they have distributed makes an important contribution to establishing a national system for certified budwood.

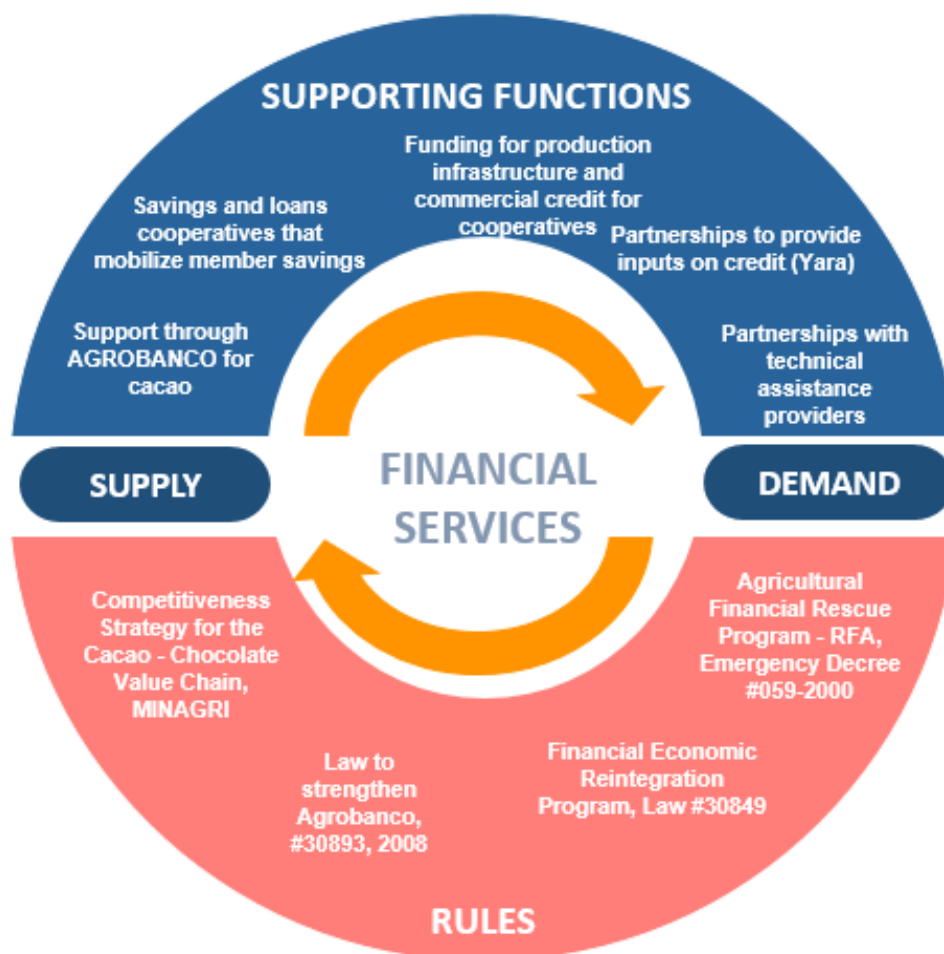


Figure 6 Market system for financial services for cacao in Peru

*Financial services* for cacao farmers are provided through three main channels. 1. Microfinance organizations, especially those services affiliated with farmer organizations such as the Cooperativa de Ahorro y Crédito (CAC) Norandino or CAC Cristo de Bagazán; 2. From the government through AGROBANCO often in alliance with projects or inputs suppliers (AGROBANCO suspended operations for the past year but anticipate that with the new law support for small farmers will expand); and 3. Social impact investors who lend to cooperatives, largely commercial credit or for infrastructure. The first two

offer products that could be used for R&R. Funding for microfinance organizations come from social lenders, commercial lenders and member savings and therefore limit possibilities for long term financial products for farmers. Public sector financing has greater flexibility in this regard, and the government seems committed to providing financial services to the agricultural sector, but it will take a while to restructure. Social impact investors loaning to cooperatives are focused on commercial credit that when transferred to farmers mostly support cash flow for regular cacao management practices.

Support services include the funding mechanisms for microfinance and farmer organizations that are based in production regions and lend to farmers such as second tier lenders. Technical assistance and inputs provision are other important support services that could be more tightly integrated.

Rules and incentives for second tier lenders and those related to capture and use of member savings place limitations on how those resources can be offered to farmers in terms of funding amounts, interest rates/costs, and term limits. Regulations related to farmer debt relief, restructuring of AGROBANCO, and national strategy for the sector have an impact on public financial resources available for the sector

## RELEVANT INITIATIVES IN THE SECTOR

- **Alianza Cacao Peru, Phase II, 2016-2021, \$75 million Palladium:** This project targets 20 thousand cacao farmers in San Martin, Huánuco and Ucayali, in support of the Peruvian government's alternative development program to transition coca farmers to licit crops. The project works through partnerships, largely with the private sector, to deliver technical assistance, finance, improved quality management and market access. Their approach is very similar to that proposed by MOCCA and they are a dominant player in the sector. Their collaborative approach can serve as a model for other countries and sectors.
- **National Cacao Strategy Development, 2019-2020, UNDP and MINAGRI:** Following the experience with developing the national action plan for coffee, the UNDP Green Commodities program plans to carry out a similar process (in 2019) to align actors in the cocoa sector around a common strategy. This process will engage the national cacao working group and provides an opportunity to expand representation and strengthen the structure in support of the national plan that emerges.
- **Norandino Agricultural Cooperative's cacao processing plant in Piura, 2019, \$7million:** In May, Norandino inaugurated a processing plant to add value before exporting. The plant can process 4,000 MT of cacao a year, and they anticipate selling services to other cooperatives in Peru and in the region. Norandino already manages a processing plant for coffee and panela and successfully processes and sells its services.

## ENTRY POINTS FOR MOCCA

- **Cadmium research network connected to technical assistance and market access information networks** - Multiple players, including INIA, have come together under a working group coordinated by MINAGRI around cadmium including work on soils, genetic material, management practices, market access, quality standards and others. This working group can be an opportunity to support a national research system, strengthen the role of INIA in the cacao sector, and connect research to dissemination networks to next users. *Possible partners: MINAGRI, TechnoServe/USDA Cacao Seguro, Bioversity, INIA, Swisscontact, CIAT, Ecom, La Molina.*

- **Carve out a complementary niche to Alianza Cacao** – Alianza Cacao is a dominant player, a much larger and longer standing investment, and is working one way or another with almost every other relevant player at the national level. It will be important to explore with USAID and Alianza Cacao how MOCCA should complement the work of Alianza Cacao geographically or thematically. One possibility that is in line with MOCCA's work plan, is to focus more directly on the longer standing cacao producing regions and on more differentiated cacaos, partnering with NORANDINO to add value where possible and improve overall quality management and differentiation. Another complementarity could be work in the Vraem which is a region of interest for the US where Alianza Cacao is not currently active. It will also be important to take advantage of advances made by Alianza Cacao and extend these where possible to the MOCCA regions, as well as to collaborate in national level market system interventions. *Possible partners: Palladium, USAID*
- **Collaborate with UNDP on national cacao strategy development with MINAGRI** – UNDP has expressed their plans to engage in a national process to develop a strategy for cacao, similar to that developed for coffee. This is an early opportunity for MOCCA to identify together with other actors desired system level changes and strategies for interventions that may then become part of a plan that others will contribute to implementing. *Possible partners: UNDP Green Commodities program, MINAGRI, Cámara Peruana de Café y Cacao, APPCACHO.*
- **Support system for improved genetic material** – The regulatory infrastructure exists for certification of genetic material, nurseries and nursery operators. Farmer organizations could be natural partners with whom to build capacity for production of seeds, budwood or seedlings either as a business or as a provider to cooperatives and their associates. In some cases, it could make sense to collaborate across coffee and cacao on this.

## WORKS CITED

1. **MINAGRI.** *Estudio del CACAO en el Perú y en el Mundo. Un análisis de la producción y el comercio.* 2016.
2. **FAOSTAT.** *FAOSTAT crop and trade data.* [En línea] 2019. <http://www.fao.org/faostat/en/#data>.

## APPENDIX: Sources used for table included in the country snapshot

Data	Source
Population (rural)	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/OA">http://www.fao.org/faostat/es/#data/OA</a> Data for 2017
Farmers	Instituto Nacional de Estadística e Informática (2014). CARACTERÍSTICAS SOCIOECONÓMICAS DEL PRODUCTOR AGROPECUARIO EN EL PERÚ, IV Censo Nacional Agropecuario 2012 <a href="https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1177/libro.pdf">https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1177/libro.pdf</a>
GDP per capita	WDI World Bank (2019). Data online: <a href="https://data.worldbank.org/indicator/ny.gdp.pcap.cd">https://data.worldbank.org/indicator/ny.gdp.pcap.cd</a> Data for 2017
HDI Rank	Data - Human Development Reports – UNDP (2019). Data, online at <a href="http://hdr.undp.org/en/data#">http://hdr.undp.org/en/data#</a> Data for 2017
Poverty (rural)	WDI World Bank (2019). Data online: <a href="https://datos.bancomundial.org/indicador/SI.POV.NAHC?view=chart">https://datos.bancomundial.org/indicador/SI.POV.NAHC?view=chart</a> Data for 2017 (2014)
Cacao farmers, #	Ministerio de Agricultura y Riego. 2016. Estudio del CACAO en el Perú y en el Mundo, UN ANÁLISIS DE LA PRODUCCIÓN Y EL COMERCIO. Páginas 63 y 64.
Associated farmers, %	Key informant interviews
Area harvested, Ha	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data for 2017
Production, MT	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data for 2017
Global rank among producing countries	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019 online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data for 2017, countries ranked by Production, MT
Yields, MT/Ha	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data for 2017, calculated as Production/Area harvested.
Climate risk	Calculated as percent of currently suitable land requiring transformational adaptation by 2050 using data from: Bunn, C; Lundy, M; Wiegel, J; Castro-Llanos, F. 2019. Impacto del cambio climático en la producción de cacao para Centroamérica y El Caribe. Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia, available at: <a href="https://cgspace.cgiar.org/handle/10568/101293">https://cgspace.cgiar.org/handle/10568/101293</a>



Exports, MT (beans)	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data for 2016. Total cacao exports (cacao exports unprocessed/beans)
Exports,'000 USD	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data for 2016
% of all export value	Total export value: WDI World Bank (2019). Data online: <a href="https://datos.bancomundial.org/indicador/SI.POV.NAHC?view=chart">https://datos.bancomundial.org/indicador/SI.POV.NAHC?view=chart</a> Cacao export value: Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/TP">http://www.fao.org/faostat/es/#data/TP</a> Data for 2016. Calculated as Value of all crop exports/Value of total exports
Principal markets	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> . Data on exporting partners from 2016
Export Price Beans (USD/MT)	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data from 2016. Calculated as Exports,'000 USD/Exports, MT
Quality CACAO (ICCO Annex classification)	Based on classification in the ICCO Annex C of Fine and Flavor producing countries. Is based on expert assessment of quality potential not actually cacao sold at differentiated prices. <a href="https://www.icco.org/about-us/international-cocoa-agreements/cat_view/30-related-documents/215-fine-or-flavour-cocoa.html">https://www.icco.org/about-us/international-cocoa-agreements/cat_view/30-related-documents/215-fine-or-flavour-cocoa.html</a>
Certifications	Key informant interviews, major certifications used.
Imports, MT, (beans)	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data from 2016, Total imports (bean imports)
Imports/Exports, volume	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at <a href="http://www.fao.org/faostat/es/#data/">http://www.fao.org/faostat/es/#data/</a> Data from 2016. Calculated as Imports, MT/ Exports, MT

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Maximizing Opportunities  
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